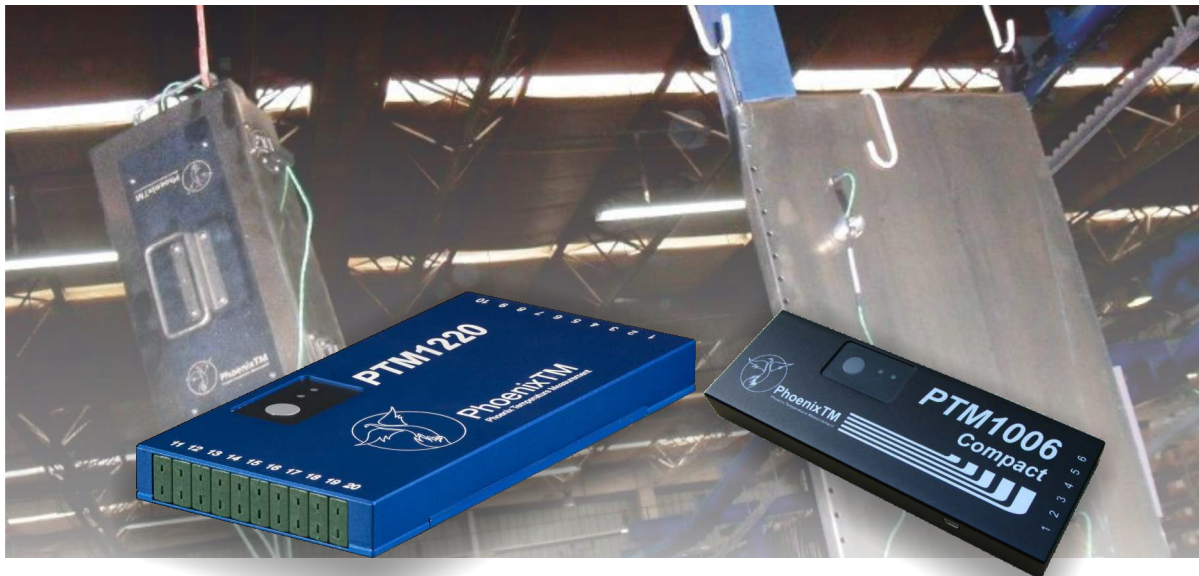




PhoenixTM
Phoenix Temperature Measurement

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PhoenixTM High Accuracy Data Loggers for Use in Finishing Applications

PhoenixTM Data Loggers are designed for use in industrial processes. Our data loggers supplied to the finishing industry are specifically designed for monitoring temperatures inside paint and powder coat curing ovens, and P.T.F.E. bake ovens. PhoenixTM Data Loggers include these key features:

- No complex keypad programming sequences, simple to set up in the comprehensive, industry specific software package supplied.
- 6, 10 and 20 channel versions means maximum data input available.
- Internal cold junction compensation with feedback error detection and noise reduction, which ensures accurate and reliable data over the operating range of the data logger.
- A tough, lightweight, machined aluminium case provides mechanical and moisture proof protection in an industrial environment.
- Able to operate inside finishing ovens, protected by a PhoenixTM silicone-free thermal barrier.
- Powered by standard 'AA' alkaline batteries with up to 1000 hours lifetime. Eliminates waiting time for rechargeable batteries that have not been fully charged
- Bluetooth capability to allow wireless logger download and reset.
- Optional two way RF telemetry. Allowing the data logger to be downloaded and reset via RF. Two way telemetry allows for 'data catch up' if the RF signal is temporarily interrupted. Additionally this allows for an analysis window to be opened mid process and for full process details to be analysed.
- Multiple data loggers can be monitored on the same PC when working in real time.

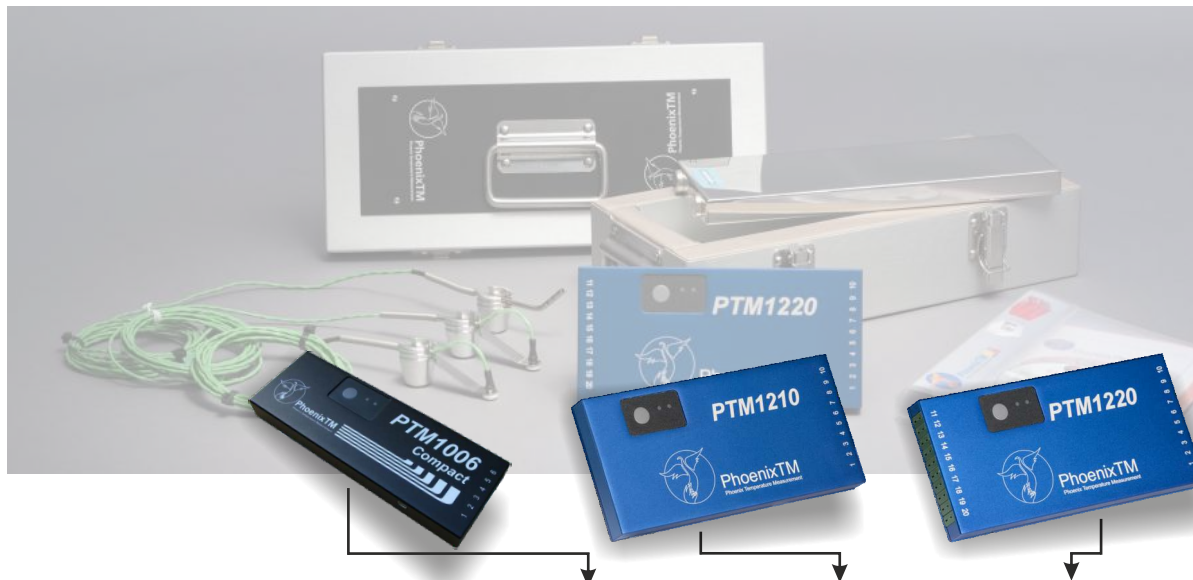
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PHOENIXTM Data Loggers PTM1200 Series



Technical details low temperature (LT) data loggers (type K):



Data logger model number:	PTM1-106-Compact	PTM1-210-LT	PTM1-220-LT
No. of channels:	6	10	20
Physical dimensions:			
Length:	200 mm	200 mm	
Width:	70 mm	98 mm	
Height:	20 mm	20 mm	
Weight:	0.5 Kg	0.7 Kg	
Measuring range:	0°C to +500°C		0°C to +500°C
Real time data transmission*:	Via USB cable only	Via USB cable and Bluetooth as standard, via 2 way RF telemetry optional	
Bluetooth:	Not available	V2.1 SPP Compatible with Windows PC's and Android tablets / phones. Range 10metres.	
Memory total (Non Volatile Memory)	Up to 440,000 data points	Up to 3.8 million data points	
Sampling interval:	From 0.5s to 1 hour	From 0.2s to 1 hour (min.1.0s for RF or USB telemetry)	
Operating temperature:	0°C to +80°C		
Logger start by:	Date & time, temperature, start button, or software		
Resolution:	0.1°C		
Accuracy:	±0.3°C		
Sealing LT:	IP60		
Battery type:	2 x 'AA' Alkaline replaceable batteries		
Battery life:	Up to 1000 hours (Depending on operating temperature, telemetry use, & sampling interval)		

* RF only available with the following software: Thermal View Finishing, Thermal View Plus, Thermal View Survey, and Thermal View for Food Processing
Note: As products are continually improved, specifications may be changed without prior notice.

Represented by:



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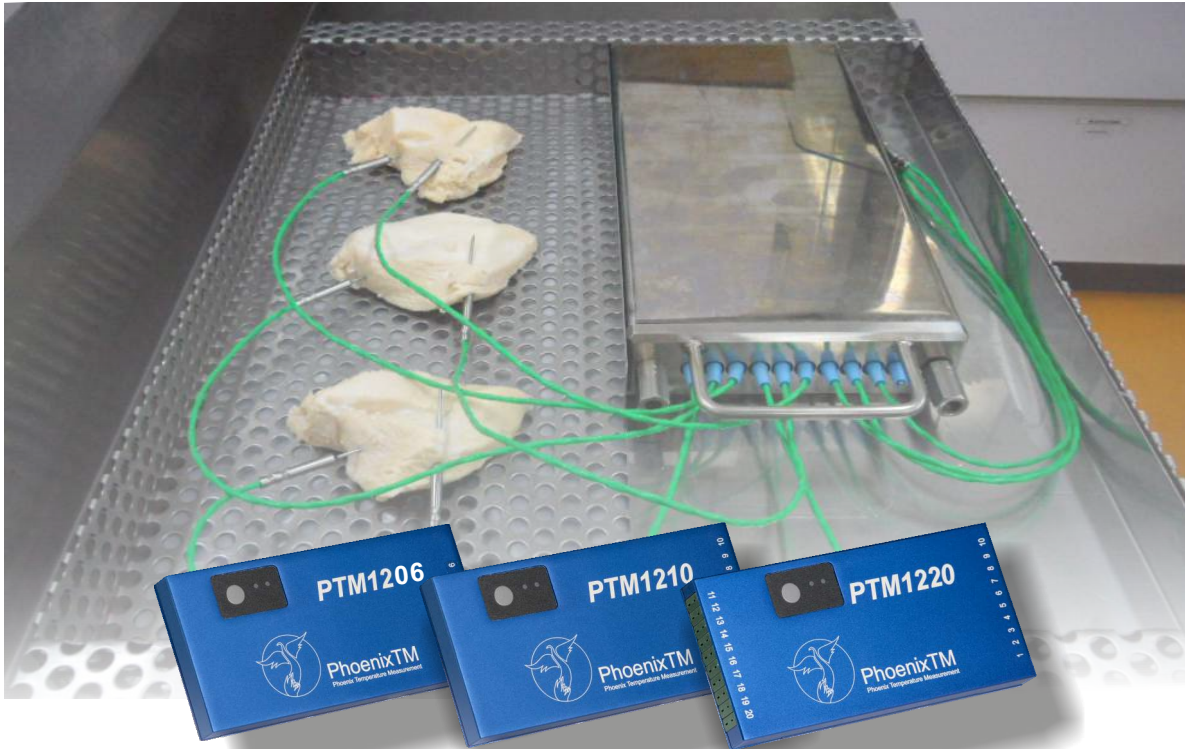
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PHOENIXTM Data Loggers PTM1200 Series

PhoenixTM High Accuracy Data Loggers for Use in Food Processing and Cryogenic Applications

PhoenixTM data loggers are designed for use in industrial processes. Our data loggers supplied to the food industry are specifically designed for monitoring temperatures in the harshest cooking, frying and freezing environments. The PTM1200-NT range is also recommended for surveying cryogenic freezers in heat treatment applications. PhoenixTM Data Loggers provide these key features:

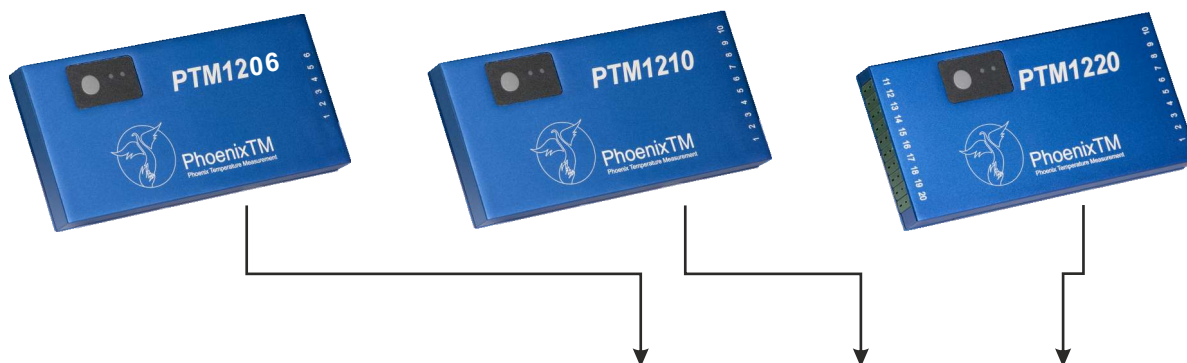
- No complex keypad programming sequences, simple to set up in the comprehensive software package supplied.
- 6,10 and 20 channel versions means maximum data input available.
- Wide operating temperature range(-40°C to +80°C)
- Internal cold junction compensation with feedback error detection and noise reduction, which ensures accurate and reliable data over the operating range of the data logger.
- Bluetooth capability to allow wireless logger download and reset.
- Powered by standard 'AA' alkaline batteries with up to 1000 hours lifetime. Eliminates waiting time for rechargeable batteries that have not been fully charged
- A tough machined aluminium case providing mechanical and waterproof protection.
- Optional two way RF telemetry allowing data catch-up if the signal has been temporarily interrupted, or where the logger needs to be downloaded and reset remotely between different processes. Additionally this allows for an analysis window to be opened mid process and for full process details to be analysed.

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Technical details negative temperature (NT) data loggers (types K, & T):



Data logger model number:	PTM1-206-NT	PTM1-210-NT	PTM1-220-NT
No. of channels:	6	10	20
Resolution:	0.1°C		
Memory total (Non Volatile Memory):	Up to 3.8 million data points		
Sampling interval:	From 0.2s to 1 hour (minimum 1.0s when RF or USB telemetry used)		
Logger start by:	Date & time, temperature, start button, or software		
Real time data transmission*:	Via USB cable and Bluetooth as standard, via 2 way RF telemetry optional		
Bluetooth:	V2.1 SPP Compatible with Windows PC's and Android tablets / phones. Range 10metres.		
Physical dimensions:			
Length:	200 mm		
Width:	98 mm		
Height:	20 mm		
Weight:	0.7 Kg		
Operating temperature:	-40°C to +80°C		
Battery type:	2 x 'AA' Alkaline replaceable batteries		
Battery life:	Up to 1000 hours (Depending on operating temperature, telemetry use, & sampling interval)		
Sealing HT:	6 & 10 channel IP67, 20 channel IP65		
Thermocouple types:	K	T	
Measuring range:	-200°C to +400°C	-200°C to +375°C	
Accuracy (depending on operating temperature of data logger):	±0.3°C (-40°C to +50°C) ±0.4°C (+51°C to +80°C)	±0.3°C (-40°C to +50°C) ±0.4°C (+51°C to +80°C)	

* RF only applicable to Thermal View Plus, Thermal View Survey, and Thermal View for Food Processing Software
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PhoenixTM 1200 Series High Temperature Data Loggers for use in Standard or Evaporative Thermal Barriers

PhoenixTM Data Loggers are designed for use in industrial processes. At PhoenixTM we believe that Data Loggers for thermal profiling and surveying must be built to operate in the harshest environments while maintaining accuracy throughout their operating temperature range. PhoenixTM Data Loggers include these key features:

- A tough, lightweight, machined aluminium case providing mechanical and **waterproof** protection.
- Meets and exceeds all the requirements of AMS2750 (latest version), and CQI-9.
- Internal cold junction compensation with feedback error detection and noise reduction, which ensures accurate and reliable data over the operating range of the data logger.
- Optional two way RF telemetry. Allowing the data logger to be reset and downloaded via RF. Two way telemetry also allows for data catch up if process conditions such as a water quench temporarily interrupts the signal. Additionally this allows for an analysis window to be opened mid process and for full process details to be analysed.
- Multiple data loggers can be monitored on the same PC when working in real time.
- Bluetooth capability to allow wireless logger connection for download and reset.
- Data logger calibration correction factors can be stored in memory after authorized calibration and uploaded to the analysis software. A signed PDF copy of the certificate of calibration can also be downloaded from the data logger and printed for AMS2750 TUS and CQI-9 requirements.
- Operates in furnace conditions which may include high ambient temperature, humidity, vacuum, & high pressure. As an extra safety feature, in T6 aluminium processes where a quench is involved, the logger is able to withstand full immersion in water.
- 6, 10 and 20 channel versions with mixed thermocouple combinations available.



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PHOENIXTM Data Loggers PTM1200 Series



Technical details common to both standard and high operating temperature data logger types:

Data logger model number:	PTM1-206-Sigma (&HT)	PTM1-206 (&HT)	PTM1-210 (&HT)	PTM1-220 (&HT)
No. of channels:	6	6	10	20
Resolution:	0.1°C			
Memory total (Non Volatile Memory):	Up to 3.8 million data points			
Sampling interval:	From 0.2s to 1 hour (minimum 1.0 s when RF or USB telemetry used)			
Logger start by:	Date & Time, Temperature, Start Button or Software (RF Telemetry if supplied)			
Real time data transmission*:	Via USB cable & Bluetooth as standard, via 2 way RF telemetry optional			
Bluetooth:	V2.1 SPP Compatible with Windows PC's and Android tablets / phones. Range 10metres.			
Physical dimensions:	PTM1-206-Sigma		PTM1-206 / 210 / 220	
Length:	200 mm		200 mm	
Width:	70 mm		98 mm	
Height:	20 mm		20 mm	
Weight:	0.5 Kg		0.7 Kg	

Technical details standard operating temperature data loggers (types K, N, T, J):

For 'heat sink' models. Model number:	PTM1-206-Sigma	PTM1-206	PTM1-210	PTM1-220
Operating temperature standard logger:	0°C to +80°C maximum			
Battery type standard logger:	2 x 'AA' Alkaline replaceable batteries			
Battery life standard logger:	Up to 1000 hours (Depending on operating temperature, telemetry use, & sampling interval)			
Sealing standard logger:	IP60			
Thermocouple types supported:	K / N	T	J	
Measuring range:	-100°C to +1370°C (K) -100°C to +1300°C (N)	-200°C to +375°C (T)	0°C to +1000°C (J)	
Accuracy:	±0.3°C	±0.3°C	±0.3°C	

Technical details high operating temperature (HT) data loggers (types K, N, R, S, B):

For 'Evaporative' thermal barriers. Model #:	PTM1-206-Sigma-HT	PTM1-206-HT	PTM1-210-HT	PTM1-220-HT
Operating temperature HT logger:	+110°C maximum			
Battery type HT logger:	2 x 'AA' size lithium replaceable batteries			
Battery life HT logger:	Up to 1000 hours (Depending on operating temperature, telemetry use, & sampling interval)			
Sealing HT logger:	PTM1-206-HT, PTM1-210-HT = IP67. PTM1-206-Sigma-HT, PTM1-220-HT = IP65			
Thermocouple types supported:	K / N	R / S	B	
Measuring range:	-100°C to +1370°C (K) -100°C to +1300°C (N)	0°C to +1760°C (R) 0°C to +1760°C (S)	+50°C to +1815°C (B)	
Accuracy:	±0.3°C	±0.7°C	± 3.0°C at +400°C ± 1.0°C at +1500°C	

* RF only available with the following software: Thermal View Finishing, Thermal View Plus, Thermal View Survey, and Thermal View for Food Processing
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